

Introduction

to Animal Tracks and Signs

Mountains to the Sea Educator Activity Guide: Animal Tracks and Signs is designed to be used in conjunction with a visit to the Mountains to the Sea exhibit hall; however, many of the activities can be done even if your class never visits the Museum. While a wide variety of natural science topics are presented in the exhibit hall, this activity guide focuses on animal tracks and signs. The guide includes student activities to be done before, during, and after a visit to the Museum; background information on animal tracks and signs; and a list of useful references and resources. Use this activity guide to fulfill science curriculum strands and goals and to enrich your students' Museum experience.

Why study tracks and signs?

Wild animals can be found just about anywhere, in city parks, in natural areas, and even in your backyard. Think of the last time you went hiking through a forest or along a pond or lake. Some animals were undoubtedly easy for you to spot, but there were many others which you never saw. How do you know the animals were there at all? Most animals leave behind clues. By knowing what to look for and where to look, you can be a nature detective and discover what animals live in your area.

What do tracks and signs tell us?

The tracks and signs an animal leaves behind are keys to learning where that animal lives, how it hunts, when it travels, and what it eats. The combination of tracks and signs can tell a story. For example, if you hike near a river and find an area filled with otter tracks, you know that an otter has been there. If you find scat filled with scales near the tracks, you can hypothesize that the otter ate a fishy meal. You may even find an impression in the river bank where the otter playfully slid down the bank into the water. When you put all of these signs together, they can help you recreate the otter's activities.

What are animal signs?

Animal signs may be as obvious as a beaver dam or as obscure as the nibbled end of a twig. With a bit of practice and a good field guide, you can often match the sign with the animal that left it behind. Some common animal signs are described below. Keep in mind that the activities contained in this guide focus on signs that are easily interpreted by humans.

Tracks

Definition: The footprints of an animal.

Tracks are commonly found clues that you can use to identify an animal and study its behavior. The shape of the track can reveal if the animal has toes, claws, or hooves and may help determine the animal's identity. The placement and number

of tracks can give you insight into the animal's behavior. You might find one track, a series of tracks, a heavily traveled trail, or an area of activity. A raccoon, for example, may wander along a stream bank, stop to dig up clams, and stay to eat them, leaving behind tracks where it walked and sat. There might even be empty clam shells for you to interpret.

Scat

Definition: The feces of an animal.

Every animal leaves behind scat. The placement, shape, and contents of scat can tell you what type of animal left it. The scat of carnivores commonly contain undigested bits of prey, such as fur, bone fragments, or fish scales. Herbivores, such as rabbits and deer, leave pellets of tightly packed plant material. An omnivore's scat can have practically anything in it and is often the most difficult to identify because of the animal's opportunistic diet. Many times, identifying an animal from its scat alone is difficult because the diets of most animals change with the seasons, which changes the appearance and contents of their scat.

Food caches, remains, or kill sites

Definition: Areas where food is stored or left over from a feeding.

You can identify many animals by observing how and what food is stored, by examining the bits and pieces of food left behind, or by studying the clues left at a kill site. Nuts stored at the base of trees or in the ground may indicate the actions of a squirrel. Beavers leave their mark on branches and twigs where they have carefully chewed off the bark. Owls cough up "pellets," wads of indigestible bits of prey like bones, teeth, or feathers. A kill site, where a predator has killed and eaten its prey, may show signs of a struggle. These areas may have patterns in the dirt indicative of a scuffle, broken branches, scattered bones, feathers, bits of exoskeletons, dried blood, or large pieces of carcass. A common example of a kill site is a spider web, where silk-wrapped exoskeletons from past victims litter the area in and around the web.

Nests and home sites

Definition: A shelter of some kind; may be naturally occurring, built, or excavated.

Most animals use some type of shelter at various times during their lives. Animals may live in shelters year round, during the breeding season, or in the winter. Animals can build their shelters in the trees, in the water, or in the ground. Examples of shelters built by animals are bird nests, hornet nests, beaver lodges, and chipmunk burrows. Some animals utilize naturally occurring dens or cavities within trees, hollow logs, caves, or brush piles. The big-eared bat, for example, roosts in tree cavities. Other animals make changes or additions to naturally occurring nest sites. For example, wood ducks commonly build nests inside existing tree hollows.